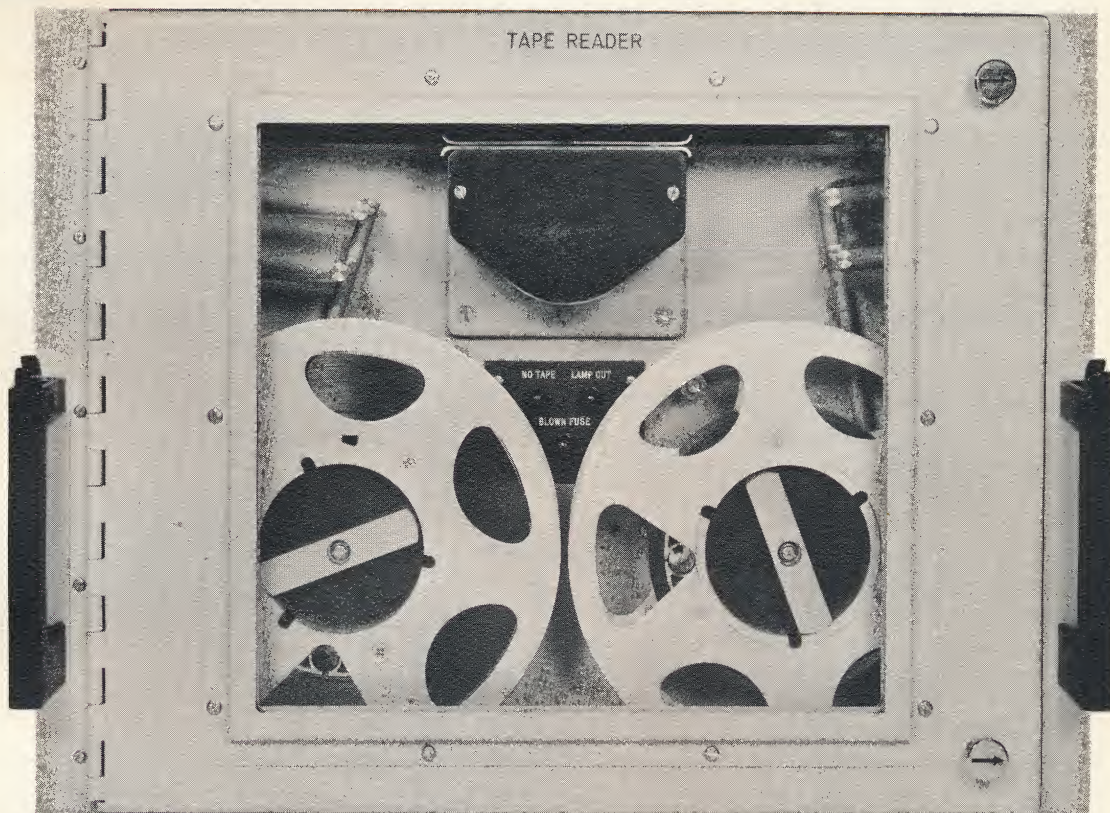




# MODEL 500 RM

## MILITARIZED TAPE-READER



### DESCRIPTION

The 500RM is the first fully militarized high speed photoelectric tape reader that meets applicable military specifications without exception. This high reliability unit utilizes a printed motor direct capstan drive for transport of tape through the read head, completely eliminating pinch rollers, brakes and clutches. The simplicity of this design results in accurate readout over a wide range of conditions, extremely quiet operation and long service life with a minimum of maintenance.

### MILITARY SPECIFICATIONS

Conforms to Class 3 of MIL-E-16400, Class 2 of MIL-T-21200 and MIL-T-945.

### READING SPEEDS

Line-by-line (asynchronous): 150 char/sec.  
Slewing (free run): 500 char/sec.  
Wind or search: 1000 char/sec.

### STOP DISTANCE

On stop character at 150 char/sec.  
Before character following stop character at 500 char/sec.  
Within 5 characters at 1000 char/sec.



**Photocircuits**  
CORPORATION

TAPE READER DIVISION

GLEN COVE, N.Y.



## TAPE DIRECTION

Bi-directional in all modes.

## TAPE TYPES

Paper, paper mylar, metalized mylar with a maximum light transmission of 40%. Accommodates 5, 6, 7 or 8 level tape  $\frac{1}{16}$ ",  $\frac{1}{8}$ " or 1" wide.

## TAPE STORAGE

Reel servos designed to handle standard 8" diameter NARTB reels. Approximate tape capacity: 1000 ft. of .0025" thick tape, 550 ft. of .0046" thick tape.

## OUTPUTS

Optional polarities up to 10 volt level; plus or minus available.

HOLE: +10 volts or -10 volts or 0 volts @ 5ma.

NC HOLE: +10 volts or -10 volts or 0 volts @ 5ma.

SPROCKET: +10 volts or -10 volts or 0 volts @ 5ma.

NOTE: all outputs must be same polarity.

## TIMING

Sprocket generated 35  $\pm$ 5 microsecond pulse, up to  $\pm$ 10 volts @ 5ma. Must be same polarity as sprocket output.

## INPUTS

START: 6 volt level or pulse. Minimum pulse width 30 microseconds. Maximum rise time 2 microseconds.

STOP: 6 volt level or pulse. Minimum pulse width 30 microseconds. Maximum rise time 2 microseconds.

FORWARD (read or wind right): 6 volt level @ 20 milliwatts maximum.

REVERSE (read or wind left): 6 volt level @ 20 milliwatts maximum.

WIND/SEARCH: 6 volt level @ 30 milliwatts maximum.

NOTE: Logic polarities must be all positive or all negative.

## POWER INPUT

117 volts  $\pm$ 10%, 1 phase 400 or 60 cycles  $\pm$ 5% (Standard design will accommodate 60 or 400 cycles not both) Nominal power consumption 350 watts. For elimination of electrolytic capacitors dc power may be used for reader drive. DC power required:  $\pm$ 15 volts, 15 amperes peak, rated at 50% duty cycle, maximum voltage regulation 10%. AC input is required for reel drive whether dc supplied for reader or not.

## RELIABILITY

MTBF 1000 hours.

Expected life: 10,000 hours minimum.

## MECHANICAL SPECIFICATIONS

Approximate dimensions are 19" wide x 14" high x 14" deep.

Weight is approximately 85 lbs.

Recessed mounting, provided with dust tight front cover, reader and spooler integrally assembled, designed to allow chassis slide mounting.

Locking type chassis handles provided.

Connectors per MIL C-5015.

Color in accordance with individual agency requirements.

## ENVIRONMENTAL SPECIFICATIONS

The reader is certified to meet or exceed the following specifications. Qualification testing is not provided on each unit unless specified.

Temperature (operating): -40°C (-40°F) to +63°C (145°F.)

Temperature (non-operating): -54°C (-65°F) to 72°C (160°F).

Humidity: 100%.

Vibration: 5 to 15 cps 0.06 in. double amplitude

15 to 25 cps 0.05 in. double amplitude

25 to 55 cps 0.02 in. double amplitude

Vibration subjected in all three planes, and for resonance.

Shock: 15 g. impulse duration 11 milliseconds.

Sand, dust, fungus, salt atmosphere as required by MIL-T-21200 and MIL-STD-202.

Altitude: operating 10,000 ft., non-operating 50,000 ft.

R F I as required by MIL-I-26600, 16910 class II equipment.

## QUALITY ASSURANCE

MIL-Q-9858.

## MARKING

Per MIL-STD-16 and 130.

## FAULT INDICATION

Connector terminated test points for fault-indication and location.

## PROTECTIVE DEVICES

No Tape with external indication.

Fused inputs (power).

## PREFERRED COMPONENTS

Full use of standard preferred components is made except when not available to perform a specific function. Formal request for deviation will be made in the event a preferred component is not available.

## LOGIC DESIGN

All solid state design, no vacuum tubes used.

TAPE READER PRICE LIST

<u>MODEL</u>	<u>QUANTITY</u>	<u>UNIT PRICE</u>
100R	1 - 9	\$2990.00
300R	1 - 9	3990.00
*500R	1 - 9	2975.00
**500T	1 - 9	1750.00
**500S	1 - 9	1675.00
***500RM	1 - 4	9555.00
500RM	5 - 9	8320.00

Prices subject to change.

Terms: Net 30 days, F.O.B. Glen Cove, New York

Prices for larger quantities requirements available upon request.

\*Standard equipment includes negative logic, recessed or flush mounted integral unit. Additional cost for positive or inverted logic is \$150.00 per unit.

\*\*The separate reader or spooler is available only flush mounted.

\*\*\*The standard militarized unit includes positive logic. Additional cost for negative or inverted logic is \$750.00 per unit.

**T. NELSON**  
**SYSTEMS CONSULT.**  
**BOX 1546**  
**POUGHKEEPSIE, N.Y. TR**

### WE NEED YOUR HELP

As part of your job, it's necessary for you to be aware of new developments in your field. We want to be sure of using the most efficient method of telling you about our new products and services. We would appreciate it if you could take 30 seconds to fill in the blanks below and drop this card in the mail.

**PHOTOCIRCUITS CORPORATION**  
**Market Research Department**

1. Did you receive the material you requested?  
☐ YES ☐ NO

2. If not, what additional information can we send you? \_\_\_\_\_  
\_\_\_\_\_

3. Was the material you requested for:

- ☐ TECHNICAL FILES
- ☐ ACADEMIC INTEREST
- ☐ FUTURE APPLICATION
- ☐ IMMEDIATE APPLICATION

4. If you could read only one trade publication, which one would it be? \_\_\_\_\_

5. What trade shows do you attend? \_\_\_\_\_  
\_\_\_\_\_



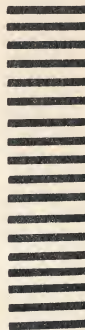
Postage  
Will be Paid  
by  
Addressee

No  
Postage Stamp  
Necessary  
If Mailed in the  
United States

BUSINESS REPLY CARD  
First Class Permit No. 99, Glen Cove, N.Y.

**PHOTOCIRCUITS CORPORATION**  
**Glen Cove**

ATT: SALES PROMOTION DEPT. **New York 11542**



OHIO (M)(R)	Terry Vance 306 Monarch Road Centerville, Ohio 513-885-2121
OHIO (P)	Robert O. Whitesell & Assoc. 1172 Galbraith Cincinnati, Ohio 513-521-2290
OHIO (P)	Robert O. Whitesell & Assoc. 21139 Lorain Avenue Cleveland, Ohio 216-ED 3-2585
OHIO (P)	Robert O. Whitesell & Assoc. 1350 West Fifth Avenue Columbus, Ohio 614-488-9371
OHIO (P)	Robert O. Whitesell & Assoc. 4129 S. Dixie Avenue Dayton, Ohio 513-298-9546
PENNSYLVANIA (R)	Brogan Associates 1 Bala Avenue Bala Cynwyd, Penna. 215-MO 7-4749
PUERTO RICO (P)	Moriss Saliss P. O. Box 464 Roosevelt, Puerto Rico 143 Trujillo Alto
TEXAS (P)	Lynn Associates 6111 Harry Hines Blvd. Dallas 35, Texas 214-FL 7-3233
TEXAS (M)(R)	Mitchell Speairs Company 4944 James Avenue Fort Worth, Texas 817-923-4657
TEXAS (M)(R)	Mitchell Speairs Company Room 109C, Houston Office Center Houston, Texas 713-923-7616
WASHINGTON (M)(R)	Stanley Enterprises 127 South River Street Seattle, Washington 206-PA 3-3320
CANADA (P)(M)(R)	Gerry McKee Enterprises 3300 Cavendish Blvd. Montreal 28, Quebec 514-482-1810



## SALES OFFICES



**Photocircuits**  
CORPORATION

GLEN COVE, N. Y. / ANAHEIM, CALIF.

Letter code designates product lines covered:

(P) Printed Circuits

(M) Printed Motors

(R) Photoelectric Tape Readers

ARIZONA (P)(M)(R) J. A. Swanson Associates  
P. O. Box 3287  
Scottsdale, Arizona  
602-WH 5-9711

CALIFORNIA (P)(M)(R) Photocircuits of California  
2211 Howell Avenue  
Anaheim, California  
714-KE 2-3338

CALIFORNIA (R) Ward-Davis Associates  
2425 Mission Street  
San Marino, California  
415-968-7116

CALIFORNIA (P) Eugene Carrigan  
P. O. Box 3245  
San Mateo, California  
415-341-7834

COLORADO (P)(M)(R) Longstreet-Smith Associates  
2801 E. Colfax Avenue  
Denver 6, Colorado  
303-399-1132

FLORIDA (P)(M)(R) Young & Lawrence Associates  
325 72nd Street  
N. St. Petersburg, Fla.  
813-341-6574

FLORIDA (P)(M)(R) Young & Lawrence Associates  
70 Moss Lane  
Winter Park, Florida  
305-647-2528

ILLINOIS (P) Hi Electron Corporation  
4735 N. Pulaski Road  
Chicago 30, Illinois  
312-588-6544

INDIANA (P) R. O. Whitesell & Assoc.  
Central Building, Room 279  
Ft. Wayne, Indiana  
219-743-4411

INDIANA (P) R. O. Whitesell & Assoc.  
6620 E. Washington Street  
Indianapolis, Indiana  
317-FL 9-5374

IOWA (P)(M)(R) Engineering Services Co.  
1026 Third Avenue S.E.  
Cedar Rapids, Iowa  
319-366-1591

KENTUCKY (P)

R. O. Whitesell & Assoc.  
3620 Lexington Road  
Louisville, Kentucky  
502-893-7303

MARYLAND (P)(M)

Charles S. Freeman  
12615 Memory Lane  
Bowie, Maryland  
301-262-9134

MARYLAND (R)

Ron Davies Associates  
4405 East West Highway  
Bethesda, Maryland  
301-652-6330

MASSACHUSETTS (R)

Brogan Associates  
Bear Hill Industrial Park  
Waltham, Mass.  
617-894-3250

MICHIGAN (P)

R. O. Whitesell & Assoc.  
16801 Wyoming Avenue  
Detroit, Michigan  
313-862-2225

MINNESOTA (P)(M)(R)

Lloyd F. Murphy & Assoc.  
730 Chicago Avenue  
Minneapolis, Minnesota  
612-333-4511

MISSOURI (M)(R)

Engineering Services Co.  
7546 Troost Avenue  
Kansas City, Missouri  
816-EM 3-6000

MISSOURI (M)(R)

Engineering Services Co.  
6717 Vernon Avenue  
St. Louis, Missouri  
314-PA 6-2233

NEW HAMPSHIRE (P)(M)

Richard M. Blais  
47 Milburn Avenue  
Hampton, New Hampshire  
603-926-8147

NEW YORK (P)(M)(R)

Photocircuits Corporation  
31 Sea Cliff Avenue  
Glen Cove, New York  
516-OR 6-8000

NEW YORK (R)

Brogan Associates  
102 Forrest Way  
Camillus, New York  
315-OR 2-8290

NEW YORK (R)

Brogan Associates  
80 Urban Avenue  
Westbury, New York  
516-ED 3-6683